



Serving Professionals in Engineering, Environmental,
and Ground Water Geology

OREGON SECTION

NEWSLETTER

The Official Newsletter of the Oregon Section Association of Engineering Geologists

November, 2001

VOLUME 01, NUMBER 11

NOVEMBER MEETING:

Speaker: ***Christina Hulbe***

Talk: **“Ice Sheet Retreat in West Antarctica, New Perspectives on a Venerable Hypothesis AND its Upstart Antithesis”**

Date: **Thursday, Nov. 15, 2001**

Times:	6:00 PM	Social hour
	7:00 PM	Dinner
	8:00 PM	Presentation

Where: ***McMenamins Cedar Hills***
2927 SW Cedar Hills Blvd.
Beaverton, Oregon

Menu: \$10/Burger Bar (Request preference – Hamburger, Cheeseburger, Gardenburger)

Reservations: Call URS at: 503-222-7200 by **4 PM, Monday (11/12/01)** request preference on dinner
“A reservation made is a reservation paid.” Please call to cancel if you can not attend. Thank you!

ABSTRACT & BIO

Ice Sheet Retreat in West Antarctica, New Perspectives on a Venerable Hypothesis AND its Upstart Antithesis

The West Antarctic Ice Sheet (WAIS) became a focus of research attention in the mid-1970s when early scientific expeditions to Antarctica discovered several special attributes of the system: the inland-dipping bedrock on which the Ross Sea sector of the ice sheet rests and the apparently strong climate sensitivity of ice shelves. Two of the three major drainages of the WAIS are "buttressed" by large ice shelves. These attributes led glaciologists to hypothesize that the ice sheet is capable of unstable response to small perturbations in climate and thus of rapid contributions to global sea level. Over the last few years, detailed studies of the soft marine clays over which the Ross Sea sector of the WAIS flows have led to a distinctly different antithesis. Models of till thermodynamics suggest complete shut-down of ice discharge is more likely than runaway retreat. A third possibility remains: that the ice sheet will continue the gradual retreat that it has experienced since the last glacial maximum. Analysis of new satellite imagery of the ice-sheet and ice-shelf system supports this less dramatic alternative.

Christina Hulbe recently joined the PSU Geology Department as an assistant professor. She is a geophysicist who specializes in glaciology, using numerical models of glacial systems to study how and why they change over time. Christina received her MS in Geology at Ohio State University and her PhD in Geophysics at the University of Chicago. While her start in glaciology was doing field work in Alaska and in Antarctica, spending the last three years at NASA Goddard Space Flight Center inspired Christina to fold the broad range of satellite-based observations into her work. Two current projects that make use of remotely-sensed data involve dramatic ice-shelf collapse events around the Antarctic Peninsula and the nature of ice sheet retreat in West Antarctica. These topics are linked directly to questions of climate change and global sea level rise.

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"Climate is primarily the result of tectonobiogeochemical activities rooted in the changing complex earth-air-ocean system..."

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Message from the Chair (NOVEMBER 2001)

As an introduction to this month's newsletter, I would like to reinforce an important message from Rex Upp, AEG's former President. In his last President's Message in the September 2001 AEG NEWS, he reminded us that the Association exists for its members and depends on members to contribute to its success. He suggested that spending as little as 15 minutes a week on some aspect of AEG would greatly benefit both the member and the Association. This is especially true for our Oregon Section. We have a large membership of over 140 members residing in Oregon, Washington, and Idaho. It is often hard for members in a section with such a large geographical area to have personal input to section activities. I know, because I was an AEG member in southern Arizona for many years when section meetings were held only in Las Vegas. There are many ways that you can spend a short period of time to benefit members in your local area and the Oregon Section as a whole: plan an activity or meeting for members in your immediate area (this could develop into a local Chapter of the Section); sign up a corporate sponsor (they get recognition in AEG NEWS, the web site, and section newsletters); recruit a member from your peers; suggest a speaker for meetings; provide reviews or comments on state and local ordinances that will affect the engineering and environmental geology professions (most agencies will have drafts on their web sites); and most importantly, contact me or other section officers by email or phone with any comments, suggestions, or problems.

Slope Ordinance Review

On behalf of the AEG Oregon Section, Charlie Hammond and I have been reviewing a Draft Hillside Protection Ordinance proposed for adaption by the City of Sandy, Oregon. The draft ordinance is on the City web site at www.ci.sandy.or.us. Select the link to the "draft Hillside Protection Ordinance". The ordinance will be considered at the Sandy City Council meeting on November 13. Written comments will be accepted at least until November 13. The main purpose of the ordinance is to minimize hazards from development activities on steep slopes. The draft ordinance provides for a technical review of a development plan by "a qualified professional consultant" (Section 17.56.50). The draft ordinance also states that a Geologic and Soils Report "shall be prepared by a professional engineer registered in Oregon" (Section 17.56.110). AEG Oregon Section's comments will support the intent of the ordinance. We also intend to recommend more clearly defining "qualified professional consultant" and allowing a Geologic and Soils Report to also be prepared by a professional geologist registered in Oregon.

The main issues on slope ordinances are how public agencies deal with slope hazards, legally regulate development, and assure that critical site information is obtained. City and county agencies have tried to be careful to draft ordinances that will not restrict services by engineers or geologists, but will require that studies are done by professionals with the correct qualifications.

Section News

We are starting to discuss plans for a student presentation meeting where students can present short talks and/or posters, meet other AEG members, and hopefully, talk to potential employers. Invitations would go out to schools in the Oregon Section region. We are hoping to schedule this as our January dinner meeting and hold it at Portland State University. More information will come as we make arrangements.

Just a reminder: Our section meeting announcements are also on AEG web page. Go to www.aegweb.org and select "Section Sites". The map will link you to our section page and pages of the other AEG sections.

AEG is your organization and serves you best when we get input from you. If you have comments or suggestions about meeting locations, speakers, dinner costs, field trips, or other items, please get in touch with me or other Section officers. We will welcome your feedback.

This Month's Meeting

Our speaker for this month's meeting will be Christina L. Hulbe. She is an Assistant Professor at Portland State University. She earned her Ph.D. in Glaciology at the University of Chicago. The topic of her talk is "Ice Sheet Retreat in West Antarctica: New Perspectives on a Venerable Hypothesis and its Upstart Antithesis". The talk will discuss glaciology in Antarctica and global warming. I look forward to an interesting talk and a good turnout.

Drew Harvey
AEG Oregon Section Chair

Short News Items

Green Briefcases: Remember those green briefcase bags that we have left over from the Seattle annual meeting? Well, now is the time to pick one or more up for \$5.00 each. That's less than you spend for lunch! People that already have one say "they were worth the old price of \$10.00 and I am going to buy another!" Get one before they are all gone!!

E-Mail "Newsletter:" PLEASE TAKE THE TIME TO SWITCH TO THE E-MAIL NEWSLETTER IF YOU CAN This saves the Section money and makes the editor's job much easier please send me your E – mail address to Dave Michael at [**dmichael@odf.state.or.us**](mailto:dmichael@odf.state.or.us)

AEG Homepage: check it out: [http:// www.aegweb.org](http://www.aegweb.org)

The Board of Geologist Examiners: 707 13th. St. SE, Suite 275 Salem, OR, 97301
Phone (503) 566-2837, Fax (503) 362-6393 e-mail: osbge@open.org
contact *Susanna Knight*, Administrator for assistance with Board issues.

If you have NEWS items that you would like to include, please contact or E-mail Dave Michael – newsletter editor at dmichael@odf.state.or.us

Oregon Section Book: The 1998 publication "Environmental, Groundwater And Engineering Geology Applications from Oregon" Edited by Scott Burns with articles by many Oregon Section members is available from Nature of the Northwest (DOGAMI Book Store –800 NE Oregon St.), Powell's Book Store, Portland State Book Store (corner 5th and Mill), Amazon.com

"Seeking Old AEG Annual Directories". If anybody has any pre-1997 AEG annual directories, please email George Freitag at gfreitag@gri.com. George is trying to compile a list of old Oregon Section officers." George Freitag, CEG GRI Geotechnical and Environmental Consultants gfreitag@gri.com Phone (503) 641-3478 Fax: (503) 644-8034

Cordilleran Section, Geological Society of America

98th Annual Meeting

Oregon State University, Corvallis, Oregon, May 13-15, 2002

This meeting will be held at the LaSells Stewart Center and CH2M Hill Alumni Center at Oregon State University. Participating organizations include the Northwest Energy Association (NWEA) of AAPG, the Oregon and Washington Chapters of the Association of Engineering Geologists (AEG), the Cordilleran Section of the Paleontological Society (PS), and the National Association of Geoscience Teachers (NAGT). Meeting chair is Bob Yeats, (541)737-1226, yeatsr@geo.orst.edu. Coordinators for participating societies are Jack Meyer (NWEA) at h2m@nwnatural.com, Scott Burns (AEG) at (503)725-3389, burnss@pdx.edu, Jeff Myers (PS) at (503)838-8165, myersj@wou.edu, and Peter Wampler (NAGT) at (541)758-8418, wamplerp@geo.orst.edu.

Convention website is <http://terra.geo.orst.edu/users/gsa2002>

AEG PARTICIPATION AT THE GSA CORDILLERAN SECTION MEETING, MAY 2002

AEG will be participating at the GSA Cordilleran Section Meeting in Corvallis, Oregon, May 13-15, 2002. A preliminary announcement will be forthcoming in an upcoming GSA Today publication.

This notice is a feeler to determine what the level of interest might be for participating in a special session on engineering geology of landslides. If you are interested in participating in a landslide theme session at this conference, please contact Scott Burns (503-725-3389, burnss@pdx.edu) or Charlie Hammond (503-452-1200, charlieh@landslidetechnology.com). The proposed theme session information is as follows:

ENGINEERING GEOLOGY CASE HISTORIES OF LANDSLIDES

GSA Engineering Geology Division; Association of Engineering Geologists

Scott Burns, Portland State University, Portland, OR, and Charles Hammond, Landslide Technology, Portland, OR

Landslides are intimately connected to geology, and engineering geologists are a critical part of landslide investigation, modeling, analysis and mitigation. Experienced practitioners will provide insights into critical issues of landslide evaluation, and case histories covering a variety of landslide impacts at various levels of owner requirements.

CONCEPT OUTLINE FOR THEME SESSION

Presentations could include one or more of the following topics:

Introductory

When are Slides a Risk to Man and/or Environment

Understanding Owners Needs and Abilities

Mapping and Modeling

Methods of Investigation and Monitoring

Stability Analysis and Understanding Factor of Safety

Mitigation Techniques

Settings

Home, development, railroad, highway, forest, utility (gas, water, power, other), marine, mining, other

Level of Evaluation

Seat-of-the-Pants

Limited/Specific

Thorough

Cost is Not an Issue

Other topics are also encouraged

AEG "Oregon Section" - OFFICERS

Area codes are 503 unless noted:

Position	Name	Daytime	Home	FAX
Chair	<i>Andrew Harvey</i> e-mail: aharvey@kleinfelder.com	644-9447	617-9486	643-1905
Chair Elect	<i>Ruth Wilmoth</i> e-mail cgivanc@aol.com	(360) 944-7397	(360) 944-6985	
Secretary	<i>Warren Krager</i> wkrager@kleinfelder.com	644-9447	684-4902	643-1905
Treasurer	<i>Rowland French</i> e-mail rowland@nga.com	(541) 757-7231	(541) 757-7331	
Past Chair	<i>Charlie Hammond</i> e-mail: chammond@cornforthconsultants.com	452-1100	274-1437	452-1528
Program Chairs	<i>Jason Hinkle</i> Jhinkle@odf.state.or.us	(541)9457468	(503) 626-2968	
	<i>Tim Richter</i> Tim_richter@urscorp.com	948-7213		222-4292
Membership	<i>Tim Blackwood</i> e-mail: tblackwood@carlsonesting.com	684-3460	631-7996	670-9147
Field Trips	<i>Tom Kuper</i> Dkuper@cybcon.com		638-9722	638-9723
Section History	<i>George Feitag</i> Gfreitag@gri.com		641-3478	644-8034

MEMBERSHIP

For application forms for Membership in AEG (Member, Associate, Affiliate, or Student), call Tim Blackwood the membership chair at (503) 684-3460 (w). He will also have copies at the monthly meetings. Membership is on a calendar year basis. If you are an AEG member, headquarters will also collect our Oregon Section dues of \$10, which just covers our newsletter costs. If you would like to subscribe to the local newsletter (comes out 9 times a year) without being an AEG member, fill out the form below and mail to Dave Michael. Note: the following form is only for people and organizations that wish to subscribe to the Oregon AEG Newsletter without being members of AEG.

APPLICATION FOR OREGON SECTION, AEG "NEWSLETTER MAILINGLIST ONLY":

NAME _____

AFFILIATION: _____

MAILING ADDRESS: _____

TELEPHONE: _____

Mail form and \$10 to Dave Michael c/o ODF NWOA, 801 Gales Creek Rd. Forest Grove OR 97116

ANNOUNCEMENT OF OUR NEXT MEETING

Nov. 15, 2001
AEG

*Dave Michael, Editor
Oregon Section, AEG
c/o ODF NWOA
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Forest Grove, OR 97116*